Duke Energy® Gas Transmission
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Islander East Pipeline Company

ISLANDER EAST PIPELINE PROJECT

Islander East Pipeline Company, L.L.C. – Branford, Connecticut

Impacts Analysis Report

May 2003

trenching of the sea floor using a bucket dredge for pipe installation from MP 10.9 through the nearshore zone to approximately MP 12.0 in 20 feet of water, and 3) plowing from the 20-foot contour into deep water out to the state line. The plowing impacts are discussed under the deepwater section while assessments of potential impacts associated with the two nearshore pipeline installation methods are given below.

Disturbance Resulting from HDD

Disturbances to the benthic environment along the HDD corridor will be limited to the exit area. At the exit, a spud barge or jack up barge will be put into place as part of the HDD procedure. The barge may be approximately 140 feet by 40 feet in size with a shallow draft, and may be in place for 90 to 120 days during the HDD portion of the pipeline installation. Six to eight anchors or additional temporary support pilings will keep the barge in place. Prior to the barge being put into place, an exit area will be dug using a bucket dredge operating from a spud or jack up barge. This area may be approximately 300 feet long by 250 feet wide, and 20 feet deep at the anticipated pilot hole breakout point, tapering to natural bottom depth at its seaward end. The majority of the excavated material will be placed onto barges and disposed of offsite. Following installation of the pipeline into the HDD exit area, the pipeline will be covered with rock, not greater than four inches in size, to provide bed stability and pipeline support. Islander East will then cover the rock with spoil excavated from the HDD exit area and then cap the HDD exit area with a layer of sand. The dredged exit area will create a disturbance zone of approximately 0.8 acre. Impacts to water quality and sediment dispersion would be minimized due to the removal of the dredged material from the seafloor. Some sediment dispersion would occur during the vertical movement of the dredged material through the water column.

Bentonite drilling fluid will be used during the HDD. Because the HDD shoreline crossing exits into Long Island Sound, there will be release of drilling fluid at the exit hole. Because the drilling fluid consists of mainly clay, the drilling fluid released during the drilling of the pilot hole will flocculate and settle within the dredged area. During the reaming process, Islander East has committed to capturing the released drilling mud in a series of casing pipes. The drilling fluid will be recycled and reused during reaming. The left over fluid will be disposed of properly. An inadvertent release of drilling fluid could also occur along the drill path, called a "frac-out". Islander East has developed a Directional Drill Monitoring Program which will be implemented during the HDD process. This program outlines procedures for the identifying and controlling of "frac-outs" as well as a procedure for notifying appropriate Federal and state agencies. Because Islander East plans to contain the drilling fluid during reaming, and a monitoring plan has been developed, little impacts to the seafloor are expected during the HDD process from the release of drilling fluid.

Disturbance Resulting from Dredging Pipeline Installation

The CTDEP defines the nearshore zone of state waters in Long Island Sound as those areas that are in waters up to 33 feet in depth. Pipeline construction within the nearshore zone will involve two types of trenching; dredging from the HDD exit to approximate MP 12.0 (20-foot depth contour), and plowing from there to approximately MP 12.7, which coincides with the 33-foot depth contour. This section of the benthic impact assessment addresses the area from approximately MP 10.9 to MP 12.0 where the pipeline trench will be dredged. Dredging will be used in the areas less than 20 feet deep because this is the minimum practical water depth